

POSITIVE FOOTPRINTS



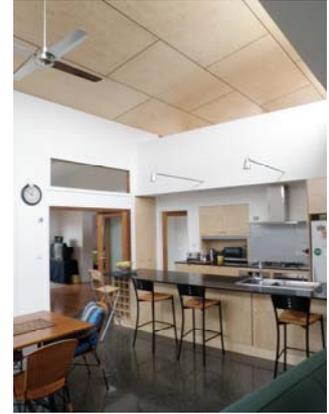
- Marion House

The Marion House is a contemporary family home that captures all the benefits from integrated Environmentally Sustainable Design. A 7 ½ star rating, excellent summer ventilation, sustainable material selection, and low VOC products throughout will make this a warm, bright, and healthy place for the family to flourish.



1) Energy Efficiency. 7 ½ stars energy rating. A 7 ½ star house uses 50% less energy to heat and cool than a 5 star house (the current requirement for new homes), and ~2/3 less energy than existing housing stock.

- Highly insulated building fabric.
- Double glazed windows & doors with clerestory windows to bring the sunlight deep into the most southern living spaces.
- Eaves designed to let the winter sun in, and keep out the summer rays.
- Rear alfresco designed to funnel seabreezes across living spaces in summer.
- Electrical clerestory hopper windows to purge hot air in summer.
- Dark polished concrete northern floor maximises the ability of the slab to act as a thermal regulator and to store the sun's heat in winter.
- Airlock entry to buffer unwanted heat loss from living space.
- Reversible ceiling fans to counter temperature stratification over vaulted 5m ceiling and provide summer cooling.
- Apricus Evacuated Tube Solar hot water system with instantaneous gas boost, linked to hydronic heating panels in Greenheat ring main
- Smart temperature sensor-automated system which regulates windows, fans, and hydronic heating to maximise the house energy performance.
- LED and compact fluorescent lighting throughout.
- Louvre vents to all exhaust fans to eliminate unwanted air leaks.
- Glazed dividing doors to rumpus provide separation of living spaces without losing visual contact. Also allows sunlight to penetrate through to this southern space.



2) Efficient use of water (~1/3 normal house use)

- Rainwater collected from entire roof via a charged filtered system.
- 8000-litre Rainwater tank to run laundry, flush toilets, and run garden taps. Automatic mains backup
- Rounded gutters to enhance self cleaning.
- All wet areas are located close to each other to minimise loss of heat in hot water pipes.
- Enviro Save water valve used to direct the first flow of "cold" hot water to the water tank. This saves the water normally wasted down the drain.



3) Material Selection

- Ecoblend concrete slab (60% slag and flyash waste products) with recycled aggregate and recycled steel mesh.
- Bamboo floors to bedrooms and rumpus.
- Recycled, Plantation or FSC timber used throughout. No Virgin forest timbers used.
- Low Embodied energy, low maintenance cladding materials. (Corrugated Colorbond & Scyon Matrix claddings)
- Recycling of approximately 95% of construction waste during the build process.

4) Health

- House follows asthma foundation recommendations for a healthy house. (ie. Low offgassing paints, cabinetry, trims and glues; no carpet; non-convective heating; and plenty of natural light.)
- Warm and bright
- Easy to clean surfaces throughout
- Light colours throughout to keep light levels high postponing the need for any lighting until dark.
- Radiant hydronic heating (minimises circulation of dust & dry air)

